

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1           1. (Currently Amended) A system for displaying a three-dimensional  
2 image of an organ or structure inside the body, the system comprising:  
3               a processor configured to be communicatively coupled to a probe, the  
4 probe being configured to be located in or adjacent to the organ or structure inside the  
5 body;  
6               memory coupled to the processor and configured to store image data  
7 pertaining to the organ or structure inside the body; and  
8               a three-dimensional display coupled to the processor and configured to  
9 simultaneously display the three-dimensional image and a representation of the probe,  
10              wherein the image data of the three-dimensional display is acquired  
11              prior to the probe being positioned inside the body.
- 1           2. (Original) The system of claim 1, wherein the representation of the probe  
2 is registered with the three dimensional image of the organ or structure inside the  
3 body.
- 1           3. (Original) The system of claim 1, wherein the representation of the probe  
2 is registered with the three dimensional image of the organ or structure inside the  
3 body using a localization system.
- 1           4. (Original) The system of claim 1, wherein the organ or structure inside the  
2 body is a heart.
- 1           5. (Original) The system of claim 1, wherein the probe is a catheter.
- 1           6. (Original) The system of claim 1, wherein the system is an  
2 electrophysiology system.
- 1           7. Cancelled.

1           8. (Original) The system of claim 1, wherein the image data is acquired  
2 during the image-guided intervention procedure using an internal medical imaging  
3 device.

1           9. (Original) The system of claim 1, wherein the system is further configured  
2 to display a map of the electrical properties of the organ or structure inside the body.

1           10. (Original) The system of claim 1, wherein the system is further configured  
2 to display historical data related to the organ or structure inside the body.

1           11. (Original) The system of claim 1, wherein the system is further configured  
2 to display auxiliary data related to an image-guided interventional procedure.

1           12. (Original) The system of claim 1, wherein the display is further  
2 configured to display visual navigational information related to an image-guided  
3 intervention procedure.

1           13. (Original) The system of claim 1, wherein the three-dimensional display is  
2 a spatial three-dimensional display.

1           14. (Currently Amended) A system for displaying a three-dimensional  
2 image of a heart, the system comprising:  
3                   a processor configured to be communicatively coupled to a probe;  
4                   memory coupled to the processor and configured to store image data  
5 pertaining to the heart; and  
6                   a three-dimensional display coupled to the processor and configured to  
7 simultaneously display the three-dimensional image of the heart and a representation  
8 of the probe,  
9                   wherein three-dimensional display is comprised of pre-operative image  
10 data acquired prior to the probe being positioned inside the body.

1           15. (Original) The system of claim 14, wherein the representation of the probe  
2 is registered with the three dimensional image of the heart.

1           16. (Original) The system of claim 14, wherein the representation of the probe  
2 is registered with the three dimensional image of the heart using a localization system.

1           17. (Original) The system of claim 14, wherein the system is an  
2 electrophysiology monitoring system.

1           18. (Original) The system of claim 14, wherein the probe is a catheter  
2 configured to collect data representative of the electrical properties of the heart.

1           19. (Original) The system of claim 14, wherein the system is further  
2 configured to display a map of the electrical properties of the heart.

1           20. (Original) The system of claim 14, wherein the three-dimensional display  
2 is a spatial three-dimensional display.

1           21-28. Cancelled.

1           29. (Currently Amended) A system for displaying a three-dimensional  
2 image of an organ or structure inside the body, the system comprising:  
3           memory configured to store a first set of image data pertaining to the  
4           organ or structure inside the body;  
5           a processor coupled to the memory and configured to be  
6           communicatively coupled to an imaging device and a probe, the  
7           imaging device being configured to generate a second set of image  
8           data pertaining to the organ or structure inside the body, and the probe  
9           being configured to be located in or adjacent to the organ or structure  
10          inside the body, the processor further configured to generate the three-  
11          dimensional image using the first set of image data and the second set  
12          of image data; and  
13          a three-dimensional display coupled to the processor and configured to  
14 simultaneously display the three-dimensional image and a representation of the probe,  
15 wherein three-dimensional display is comprised of pre-operative image  
16 data acquired prior to the probe being positioned inside the body.

1           30. (Original) The system of claim 29, wherein the system is configured to  
2 provide a warning related to an image-guided interventional procedure.

1           31. (Original) The system of claim 29, wherein the system is configured to  
2 provide a warning when the first set of image data differs from the second set of  
3 image data according to a predetermined criterion.

1           32. (Original) The system of claim 29, wherein the system is configured to  
2 determine a first estimate of the location of the probe and a second estimate of the  
3 location of the probe and to provide a warning when the first estimate differs from the  
4 second estimate according to a predetermined criterion.

1           33. (New) The system of claim 29, wherein the three-dimensional display  
2 further includes a visual indication of a change in color of the pre-operative image  
3 data in response to detection within a predetermined tracked distance relative to the  
4 probe.

1           34. (New) A system for displaying a three-dimensional image of a heart, the  
2 system comprising:  
3 a processor configured to be communicatively coupled to a probe;  
4 memory coupled to the processor and configured to store image data  
5 pertaining to the heart; and

6 a three-dimensional display coupled to the processor and configured to  
7 simultaneously display the three-dimensional image of the heart and a representation  
8 of the probe, wherein the three-dimensional display further includes a visual  
9 indication of a change in color of at least a portion of the three-dimensional image in  
10 response to detection within a predetermined tracked distance relative to the probe.

1           35. (New) The system of claim 1, wherein the three-dimensional image  
2 includes a pre-operative image data that is weighted to match an acquired intra-  
3 operative image data.

1           36. (New) The system of claim 1, wherein the three-dimensional display further  
2 includes a visual indication of a change in color of the pre-operative image data in  
3 response to detection within a predetermined tracked distance relative to the probe.

1           37. (New) The system of claim 14, wherein the pre-operative image data is  
2 weighted to match an acquired intra-operative image data.

1           38. (New) The system of claim 14, wherein the three-dimensional display further  
2 includes a visual indication of a change in color of the pre-operative image data in  
3 response to detection within a predetermined tracked distance relative to the probe.

1           39. (New) The system of claim 29, wherein the pre-operative image data is  
2 weighted to match an acquired intra-operative image data.

1           40. (New) The system of claim 29, wherein the three-dimensional display further  
2 includes a visual indication of a change in color of the pre-operative image data in  
3 response to detection within a predetermined tracked distance relative to the probe.